

PATENT
IBM Docket No. CA9-1999-0024

REMARKS

This Amendment is submitted in response to the Office Action dated September 12, 2003. Claims 1-39 are pending in the application. All claims are rejected. Claims 1, 10, 11, 14, 19, 20 and 26 have been amended and all claims remain in the application.

The Examiner rejected Claims 1, 4-6, 7-14, 19, 20, 22-23, 26, 29, 30, 32-34, and 38 under 35 U.S.C. § 103(a), as being unpatentable over Ismael (EP 0 915 419 A2) in view of Applicants' Admission of prior art (APA). The Examiner concluded that Ismael disclosed all of Applicants' invention except a home interface. The Examiner concluded that the APA teaches a home interface and that it would have been obvious to apply the teaching of APA to Ismael in order to create or find an instance of the enterprise bean.

Applicants respectfully traverse the rejection of Claims 1, 4-6, 7-14, 19, 20, 22-23, 26, 29, 30, 32-34, and 38 as being unpatentable over Ismael in view of APA. Ismael discloses a technique for remotely accessing, controlling and modifying any beans. (See Ismael, Col. 1, Lines 45-47). Ismael discloses a client workstation that communicates with a remote target object over a network. (See Ismael, Col. 3, Lines 6-27). The remote

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target object includes a framework where the remote target object is registered along with an associated network adapter. The client object, accessible by the client workstation, is associated with an appropriate network adapter in the framework. The client object disclosed in Ismael contains identification of methods of the target object along with implementation methods. (See Ismael, Col. 27, Lines 24-32). The client object disclosed in Ismael operates in a manner far different than the access bean disclosed in Applicants' invention.

Applicants' invention provides access to remote enterprise beans by hiding the complexity of the bean in a simple Java bean wrapper called an Access Bean. (see specification, Page 7, Lines 14-16). The Access Bean does this by hiding the home and remote interfaces of the enterprise bean from client applications attempting to use the enterprise bean. (see specification, Page 16-19). A software developer/user first chooses a particular enterprise bean to create Applicants' Access Bean. (See Specification, Page 15, Lines 24-28). The application developer then chooses the type of Access Bean to create. If the enterprise bean is to be used once, a Type 1 Access Bean is created (See Specification, Page 15, Lines 28-30). If the enterprise bean is to have multiple instances, then the user

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creates a Type 2 or Type 3 Access Bean. (See Specification, Page 16, Lines 1-3). The user then chooses the appropriate home interface with the appropriate setter method to complete creation of the Access Bean (See specification, Page 16, Lines 5-19). Applicants' invention thus provides an Access Bean that completely hides the home interface and remote interface of the enterprise bean from a client program (See Specification, Page 10, Lines 19-21). Unlike the client object disclosed in Ismael, Applicants' Access Bean does not require knowledge of remote beans via an object registration procedure. The client object in Ismael appears to be nothing more than the proxy object described in Applicants' specification with the addition of a registration procedure to allow identification of all remote objects available to an application program (See Specification, Page 3, Line 28 through Page 4, Line 15). Applicants have amended the claims to more clearly recite the above-mentioned limitations. Applicants believe Ismael in view of APA does not disclose the claimed invention and ask that the rejection of Claims 1, 4-6, 7-14, 19, 20, 22-23, 26, 29, 30, 32-34, and 38 under 35 U.S.C. § 103(a) be withdrawn.

The Examiner rejected Claims 2, 3, 15, 16, 18 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of

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APA and further in view of Knutson (US 6,557,100). The Examiner stated that neither Ismael nor APA disclosed caching attributes. The Examiner applied the Knutson patent for the disclosure of a cache. The Examiner concluded that one skilled in the art would combine the references because this would reduce the redeployment time spent in distributed data processing systems.

Applicants respectfully traverse the rejection of Claims 2, 3, 15, 16, 18 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of APA and further in view of Knutson. Ismael discloses a technique for accessing remote object using a client object, which acts as a proxy for the remote object. A registration procedure is provided for all remote objects available to client applications (See Ismael, Col. 3, Lines 21-37). The Knutson reference discloses a technique for reducing the time required to deploy enterprise java beans (EJB). Knutson caches a copy of a previously deployed EJB on the server. The Knutson reference has determined that if the home and remote interfaces have not changed, it is not necessary to regenerate IDL, stubs, skeletons, container management code (See Knutson, Page 4, Lines 29-40). Applicants' invention avoids the need to cache all previously deployed EJBs as disclosed in Knutson. Instead,

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Applicants' invention provides user selectable caches.

Applicants' invention provides three types of Access Beans. (See specification, Page 11, Lines 12-14). Type 1 Access Beans are created and are consumed without a cache. Types 2 and 3 Access Beans are created and utilize a cache to store a local copy of attributes from a remote enterprise bean. (See specification, Page 11, Lines 14-28. No combination of the references, taken singularly or in combination, discloses Applicants' invention for creating EJBs where the cache creation is optional, and Applicants asks that the rejection be withdrawn.

The Examiner rejected Claims 17, 24, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable over Ismael in view of APA and in view of Knutson and further in view of Gruber (U.S. Pat. 6,115,793). The Examiner stated that Ismael does not teach the cache location index and applied the Gruber reference for its disclosure of a cache location index. The Examiner concluded that it would have been obvious to apply the teaching of Gruber to Ismael in order to minimize the complexity and maximize the performance of the cache and to improve performance requires successive doubling of the size, and cost of cache memory.

Applicants respectfully traverse the rejection of Claims 17, 24, 35 and 36 under 35 U.S.C. § 103(a) as being unpatentable

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over Ismael in view of APA and in view of Knutson and further in view of Gruber (U.S. Pat. 6,115,793). Ismael discloses a technique for accessing remote object using a client object, which acts as a proxy for the remote object. A registration procedure is provided for all remote objects available to client applications (See Ismael, Col. 3, Lines 21-37). The Knutson reference discloses a technique for reducing the time required to deploy enterprise java beans (EJB). Knutson caches a copy of a previously deployed EJB on the server. The Knutson reference has determined that if the home and remote interfaces have not changed, it is not necessary to regenerate IDL, stubs, skeletons, container management code (See Knutson, Page 4, Lines 29-40). Gruber discloses a cache memory system, which minimizes the latency and latency uncertainty of data memory access by allocating spare cache memories to subsequent conflicting requests (See Gruber, Abstract). Even if the combination suggested by the examiner were attempted, it still would not yield Applicants' invention. Applicants' invention provides the user with a procedure for choosing a wrapper for creation of an Access Bean. This choice allows the user to select whether the cache is created for an enterprise java bean. No such capability exists for the combination suggested by the Examiner.

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Consequently, Applicants believe the rejection of Claims 17, 24, 35 and 36 is improper and ask that the rejection be withdrawn.

The Examiner rejected Claims 25, 27, 28, 37 and 39 under 35 U.S.C. § 103(a), as being unpatentable over Ismael in view of APA and further in view of Housel (U.S. Patent No. 6,061,714). The Examiner stated that Ismael does not teach table entry or cache synchronizing and applied the Housel reference. The Examiner concluded that application of the Housel reference allows for a reduced volume of data for transmittal and thereby increase the performance of the communication systems.

Applicants respectfully traverse the rejection of Claims 25, 27-28, 37 and 39 under 35 USC 103(a) as being unpatentable over Ismael in view of APA and further in view of Housel. Housel discloses a technique for persistent cache synchronization in connection with communications over an external communication link between an application executing on a first computer and an application executing on a second computer located remote from the first computer (See Housel, Col. 2, Lines 26-32). Housel discloses a checkpoint protocol allowing the use of a protocol cache from a previous session on new session start up rather than having to start with no cache (sometimes referred to as a "cold cache"). (See Housel, Col. 2,

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Lines 32-36). It is unclear how the Housel disclosure, which is directed to terminal to host communications, is related in any way to Ismael which is directed to the generation of a proxy client object. Nevertheless, even if the combination were attempted, it would not yield Applicants' invention.

Applicants' invention allows user/developer selection for cache creation within an access bean. No such capability is provided by the combination of the references, taken singularly or in combination. Consequently, Applicants believe the rejection of the Claims is improper and ask that the rejection be withdrawn.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a timely notice of allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



David A. Mims, Jr.
Registration No. 32,708
(512) 823-0950

ATTORNEY FOR APPLICANT

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